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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,655	11/05/2001	Ernst Freydl	5054	5282

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EXAMINER

GORDON, BRIAN R

ART UNIT PAPER NUMBER

1743

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,655

Applicant(s)

FREYDL ET AL.

Examiner

Brian R. Gordon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11-9-01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to **a single paragraph** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and **legal phraseology** often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract contains the terms "comprises" and "means".

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer

program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Section headings are missing.

Claim Rejections - 35 USC § 112

3. Claims 15-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of the claims recites an "evaporator", however, applicant does not positively claim an element as being included within the device sufficient for heating a liquid to cause evaporation. A heating element is required to properly refer to the invention as an evaporator. Claim 1 is merely directed to a holding device and cooling section with cooling means.

Applicant has elected to claim the holding device comprises at least one receiving opening. The term opening does not adequately describe the structure of

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what appears to be applicant's invention. What applicant refers to as an "opening" appears to be more of a chamber, well, compartment etc., an element with depth and walls.

As to claim 17, it is unclear how an opening has an end region. As previously stated the term "opening" is inadequate for applicant's invention as presently presented. It appears as if the holding device comprises at least one chamber or compartment open at an upper end and further comprising a cooling section at a lower end of said chamber/compartment, wherein the cooling section comprises a cooling means.

Claim 18 recites, "cooling part inserted into the receiving opening". The term "inserted" does not structurally describe or limit the invention. The term suggests that the cooling part has to be inserted in the opening. How the element is placed or constructed is not an issue of the apparatus. Any device that has a cooling part located in an interior region of a chamber would meet the limitation as claimed.

Claim 21 makes reference to a second annular gap. This is improper for none of the preceding claims which it depends upon make reference to a first annular gap.

As to claim 22 it is unclear what is meant by "channels for leading through a cooling fluid". For the purpose of examination, the examiner has assumed the channels recited are for transporting a cooling fluid.

As to claim 23, it is unclear how the "wherein" clause further limits the device. Does the device comprise a second annular gap or not? The claim appears to suggest an alternative, however applicant should specify that the device comprises a second gap. Applicant recites "in the case of". Who determines the case when a second gap is

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present? Either there is or is not a gap present. If applicant intends to claim two embodiments, they should be properly claimed in different claims.

In claim 24, there is not antecedent basis for "the second annular gap".

Claim 25 refers to a third annular gap, there is no antecedent basis with the claim or claim 15 for first and second annular gaps.

Claim 27 appears to be a method claim, however there are no specific steps claimed to perform any particular evaporation method.

Claim 28 is redundant and improper. It appears as if applicant intends to claim a separate invention of a holding device. However, the claim depends upon claim 15 in which the holding device has already been claimed. Claim 28 fails to further limit the evaporator of claim 15.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 15-17, 22, 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Lautenschlager US 5,858,178.

Lautenschlager discloses a process for preparing and/or extracting samples by heating them together with a solvent in a container under pressure. The samples are dried by heating in a container; and the resultant vapors are drawn off to generate a vacuum in the container.

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As seen in Figure 3 the device comprises pressure vessels 106 are all of similar design and consist of a pot-shaped housing 109 with a housing floor 111 and a hollow cylindrical, vertically extending housing wall 112. The aperture of the housing, which can be closed off by a cover 113 (holder which the vessel is inserted), is limited by the upper inside rim of the housing wall 112 (FIG. 4).

In greater detail, in the pressure vessel 106 a solvent chamber 127 and over it a sample chamber 128 are arranged, with a vapor duct extending upwards between the solvent chamber 127 and a vapor space 129 above the sample chamber 128, with a cooling device 110 so arranged in the vapor space 129 that any condensate 132 of the reagent or solvent produced in the area of the cooling device 110 will run down into the sample chamber 128 and preferably drop on to the sample 133 therein, and with the sample chamber 128 associated with an overflow 134 leading to the solvent chamber 127.

For preference, the cooling device 110 possesses a cooling body 151 arranged at the center of the underside of the cover 113, particularly in the form of a cooling rod or finger.

6. Claims 15-17 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyers et al. US 4,933,146.

Meyers et al. disclose a temperature control apparatus for controlling the temperature of a plurality of cuvettes consisting of an annular sealed chamber containing a refrigerant, means fixed to the sealed chamber for receiving the sample cuvettes, a heater in thermal contact with the sealed chamber, and a temperature

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sensor in thermal contact with the sealed chamber. The sealed chamber may include a plurality of thermally conductive posts fixed to the chamber, the spacing between adjacent ones of the posts being adapted to receive the sample cuvettes.

The upper portion 18 (of the holder) includes a generally horizontal annular member 54 which is adapted to be fixed to the hub assembly 14 as described above. The annular member 54 is integrally formed with an annular top portion 56, an inside vertical member or wall 58, and an outside vertical member or wall 60. The annular top portion 56 includes a plurality of square openings 62 formed therethrough adapted to receive the cuvettes 32.

The void 26 (cooling section) is provided at the lower end region of the opening 62 and may be filled with refrigerant (cooling means).

A temperature setting digital-to-analog converter (DAC) 104 receives a digital word via lines 106 and converts the digital word to an analog voltage that is applied to the subtractor 100.

7. Claims 15-17, 22, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by McClurg US 3,940,249.

McClurg discloses a laboratory testing procedure wherein test tubes are uniquely supported under conditions of refrigeration, the test tubes being placed in a generally vertical position with only the test tube bottom portions in contact with the top surfaces of a closed refrigerant reservoir having heat-absorbing means confined therein.

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As seen the figures the vessels or tubes are inserted in the fill openings 18 and at a lower section of the device a cooling section is provided by providing a cooling fluid that flows in a lower portion of the holder.

Allowable Subject Matter

8. Claims 18-21 and 23-25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach nor fairly suggest an evaporator arrangement, wherein the cooling part is thermally insulated with respect to the block nor an evaporator arrangement, with a sample vessel which is inserted or insertable into the receiving opening, wherein the outer diameter of the sample vessel and the free inner diameter of the receiving opening are selected in a manner such that between the sample vessel and the inner surface of the receiving opening there is provided a third annular gap for receiving a medium increasing the heat transfer as claimed in the instant application.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Karlsson et al., Yiu, Panetz et al., Astle, Friswell, and Kuhn et al. disclose evaporators.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

brg


JAN LUDLOW
PRIMARY EXAMINER